

Attorney Docket No. 020447

Serial No. 10/634,322

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method of obtaining data useful for one or more network applications, the method comprising performing the following steps:

detecting an occurrence of a network event;

obtaining a position estimate for a subscriber station operating within a wireless communications system responsive to a triggering event;  
detecting the occurrence of the network event;

forming a record associating the position estimate for the subscriber station with either or both of an event identifier and data, measured or obtained, responsive to the event;  
obtaining the position estimate; and

storing or transmitting the record responsive to forming the record.

2. (Cancelled)

3. (Currently Amended) The method of claim 1 wherein the network event is observed by the subscriber station.

4. (Currently Amended) The method of claim 21 wherein the network event is observed by an entity in the wireless communication system other than the subscriber station.

5. (Cancelled)

6. (Currently Amended) The method of claim 21 wherein the network event is an actual or near dropped call condition.

7. (Currently Amended) The method of claim 21 wherein the network event is the subscriber station entering the coverage area of the system or a system entity.

8. (Currently Amended) The method of claim 21 wherein the network event is the subscriber station exiting the coverage area of the wireless communication system or a system entity.

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9. (Currently Amended) The method of claim 21 wherein the network event is ~~thean~~ expiration of a timer while the subscriber station is outside ~~thea~~ coverage area of a system or a system entity.
10. (Currently Amended) The method of claim 21 wherein the network event is a failed handoff condition.
11. (Currently Amended) The method of claim 21 wherein the network event is a handoff or near handoff condition.
12. (Original) The method of claim 11 wherein the handoff condition is a hard or soft handoff condition.
13. (Original) The method of claim 11 wherein the near handoff condition is a hard or soft handoff condition.
14. (Currently Amended) The method of claim 21 wherein the network event is a change in band condition.
15. (Currently Amended) The method of claim 21 wherein the network event is passage of the subscriber station between the coverage areas of two wireless communications systems or system entities.
16. (Currently Amended) The method of claim 21 wherein the network event is passage of the subscriber station between ~~the~~ coverage areas of a donor base station and a repeater.
17. (Currently Amended) The method of claim 21 wherein the network event is detection at the subscriber station of an unexpected or unexpectedly strong pilot.

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18. (Currently Amended) The method of claim 21 wherein the network event is detection at the subscriber station of an unexpected base station.

19. (Currently Amended) The method of claim 21 wherein the network event is detection at the subscriber station of a pilot, which is absent from the subscriber station's neighbor list.

20. (Currently Amended) A method of obtaining data useful for one or more network applications, the method comprising performing the following steps:

detecting an expiration of a timer;

obtaining a position estimate for a subscriber station operating within a wireless communications system responsive to detecting the expiration of the timer;

forming a record associating the position estimate for the subscriber station with at least one of an event identifier and data, measured or obtained, responsive to obtaining the position estimate; and

storing or transmitting the record responsive to forming the record.~~The method of claim 1 wherein the event is expiration of a timer.~~

21. (Cancelled)

22. (Currently Amended) A method of obtaining data useful for one or more network applications, the method comprising performing the following steps:

detecting a user initiation of a 911 call;

obtaining a position estimate for a subscriber station operating within a wireless communications system responsive to detecting the user initiation of the 911 call;

forming a record associating the position estimate for the subscriber station with at least one of an event identifier and data, measured or obtained, responsive to obtaining the position estimate; and

storing or transmitting the record responsive to forming the record.~~The method of claim 21 wherein the event is initiation of a 911 call.~~

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23. (Currently Amended) A method of obtaining data useful for one or more network applications, the method comprising performing the following steps:

detecting a request for position-dependent services in a Web-enabled subscriber station;

obtaining a position estimate for a subscriber station operating within a wireless communications system responsive to detecting the request for position-dependent services in the Web-enabled subscriber station;

forming a record associating the position estimate for the subscriber station with at least one of an event identifier and data, measured or obtained, responsive to obtaining the position estimate; and

storing or transmitting the record responsive to forming the record. ~~The method of claim 21 wherein the event is a request for position-dependent services in a Web-enabled subscriber station.~~

24. (Currently Amended) A method of obtaining data useful for one or more network applications, the method comprising performing the following steps:

detecting an occurrence of a triggering event;

obtaining a position estimate for a subscriber station operating within a wireless communications system responsive to detecting the occurrence of the triggering event;

forming a record associating the position estimate for the subscriber station with at least one of an event identifier and data, representing one or more measurements of pilot strength or phase, measured or obtained, responsive to obtaining the position estimate; and

storing or transmitting the record responsive to forming the record. ~~The method of claim 1 wherein the record associates the position estimate with one or more measurements of pilot strength or phase.~~

25. (Original) The method of claim 24 wherein at least one of the pilots is associated with a traffic channel existing between the subscriber station and a base station.

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26. (Original) The method of claim 25 wherein the traffic channel is a forward traffic channel.
27. (Original) The method of claim 25 wherein the traffic channel is a reverse traffic channel.
28. (Original) The method of claim 1 wherein the position estimate is determined by the subscriber station.
29. (Currently Amended) The method of claim 21 wherein the position estimate is determined by an entity in the system other than the subscriber station.
30. (Original) The method of claim 29 wherein the other entity is a position determination entity.
31. (Currently Amended) The method of claim 21 wherein the record is stored locally at the subscriber station.
32. (Currently Amended) The method of claim 21 wherein the record is transmitted and stored at a remote location in the wireless communication system.
33. (Currently Amended) The method of claim 32 wherein the record is stored in a database holding like records obtained from other subscriber stations serviced by the wireless communication system.
34. (Original) A memory storing a sequence of software instructions embodying the method of claim 1.
35. (Original) A system comprising a processor, and the memory of claim 34, wherein the processor is configured to access and execute the software instructions stored in the memory.

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36. (Original) The system of claim 35 embodied by or incorporated within a subscriber station.

37. (Currently Amended) A wireless communications system for obtaining data useful for one or more network applications comprising:

one or more network entities each configured to (1) obtain or have obtained a position estimate for a subscriber station responsive to ~~a triggering~~detecting an occurrence of a network event, (2) form or have formed a record associating the position estimate for the subscriber station with ~~either or both~~at least one of an identifier of the triggering network event and data, measured or obtained, responsive to the ~~triggering event~~obtaining or having obtained the position estimate, and (3) store or having stored the record in a database responsive to forming or having formed the record.

38. (Currently Amended) The system of claim 37 wherein the one or more ~~triggering network~~ events comprise a failed handoff condition.

39. (Original) The system of claim 38 further comprising a memory holding data representing a map of failed handoff areas derived from the database, and for each area, association data associating the area with one or more base stations.

40. (Original) The system of claim 39 comprising one or more subscriber stations configured to access data derived from the database and, upon detecting roaming into a failed handoff area using this data, forcing or having forced one or more base stations associated with the failed handoff area onto one or more lists applicable to the subscriber station for supporting handoffs.

41. (Original) The system of claim 39 further comprising one or more subscriber stations configured to access the data derived from the database and, upon detecting roaming into a failed handoff area using this data, adjusting or having adjusted one or more thresholds applicable to the subscriber station for supporting handoffs.

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42. (Original) The system of claim 39 further comprising one or more subscriber stations configured to access the data derived from the database and, upon detecting roaming into a failed handoff area using this data, adjusting or having adjusted one or more search times applicable to the subscriber station for supporting handoffs.

43. (Original) The system of claim 37 wherein the one or more triggering events comprises a subscriber station roaming into, out of, or within a coverage gap.

44. (Original) The system of claim 43 further comprising a memory holding data derived from the database comprising a map of coverage gaps.

45. (Original) The system of claim 43 further comprising a memory holding data derived from the database and representing one or more gradient maps.

46. (Currently Amended) A method of obtaining data useful for one or more network applications comprising performing the following steps by or for each of a plurality of subscriber stations operating within a wireless communications system:

detecting an occurrence of a network event;

obtaining a position estimate for a subscriber station responsive to ~~one or more triggering~~the detecting the occurrence of the network events;

forming a record associating the position estimate for the subscriber station with ~~either or both~~at least one of an identifier of the triggering event and data measured or obtained responsive to the ~~triggering event~~the obtaining the position estimate; and

storing or having stored the record in a database responsive to the forming the record.

47. (Currently Amended) The method of claim 46 wherein the ~~one or more triggering network~~ events comprises failed handoff conditions.

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48. (Original) The method of claim 47 further comprising deriving data from the database comprising a map of failed handoff areas, and association data associating with each area one or more base stations.

49. (Original) The method of claim 48 further comprising, upon a subscriber station roaming into a failed handoff area, forcing or having forced a base station associated with the failed handoff area onto one or more of lists applicable to the subscriber station for supporting handoffs.

50. (Original) The method of claim 48 further comprising, upon a subscriber station roaming into a failed handoff area, adjusting or having adjusted one or more thresholds applicable to the subscriber station for supporting handoffs.

51. (Original) The method of claim 48 further comprising, upon a subscriber station roaming into a failed handoff area, adjusting or having adjusted one or more search times applicable to the subscriber station for supporting handoffs.

52. (Original) The method of claim 46 wherein the one or more triggering events comprises roaming into, out of, or within coverage gaps.

53. (Original) The method of claim 52 further comprising deriving data from the database representing a map of coverage gaps.

54. (Original) The method of claim 52 further comprising deriving data from the database representing one or more gradient maps.

55. (Original) The method of claim 53 further comprising using the data for a network planning or optimization application.

56. (Original) The method of claim 54 further comprising using the data for a network planning or optimization application, or for validating an RF propagation model.



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57. (Currently Amended) A method of obtaining data useful for one or more network applications comprising performing the following steps:

a step for forming records associating, for each of a plurality of subscriber stations, a position estimate for the subscriber station obtained, responsive to a ~~triggering~~detecting an occurrence of a network event, with ~~either or both~~at least one of an identifier of the ~~triggering~~network event and data, measured or obtained, responsive to the event~~position estimate~~;

a step for storing the records in a database responsive to the step for forming the records; and

a step for performing one or more network planning, optimization, validation or operations applications using data derived from the database.

58. (Original) The method of claim 33 wherein base station almanac information is related to said database.